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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,385	02/15/2002	Roy James Askeland	14531.132	5665
22913	7590	12/23/2003	EXAMINER	
WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER & SEELEY)			DATSKOVSKIY, MICHAEL V	
60 EAST SOUTH TEMPLE			ART UNIT	PAPER NUMBER
1000 EAGLE GATE TOWER			2835	
SALT LAKE CITY, UT 84111			DATE MAILED: 12/23/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/077,385	ASKELAND ET AL.	
	Examiner	Art Unit	
	Michael V Datskovskiy	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-7,9-26 and 28-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 15-25 is/are allowed.
- 6) ☐ Claim(s) 1-7,9-14,26 and 28-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Due to the newly discovered references indication of the allowability of the claims 8, 10, 27 is withdrawn.
2. Applicant's arguments with respect to claims 1-7, 9, 20, 26 and 28-37 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: Claim states that "at least one dampening member disposed between said fan and said housing", while said dampening member is disposed between said fan and said support structure, dampening said fan from said support structure (and not from said housing, as claimed).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 29-37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bologna et al.

Bologna et al teach a computing device 30, comprising a housing having a height being the smallest dimension of said housing, said housing encasing a power supply, a processor, a motherboard, a hard drive assembly and a baffle 60; and a fan 54 mounted on a support structure 52 within said housing, wherein said support structure . Bologna et al teach furthermore said fan drawing air over at least power supply assembly (col.3, lines 61-63) and said baffle 60, the fan 52 being greater in diameter than the height of said housing (see Fig.3). Bologna et al do not teach a fan having a rotational velocity that enable the fan to operate without generating high frequency acoustic noise, said fan being configured to generate acoustic noise of between 28 dB to about 35 dB (claim 36), or between 25 dB to about 30 dB (claims 37 and 39). Examiner has to point out, that provided by applicant explanation in the specification, why varying the size of the diameter of said fan eliminate or decreasing an acoustic noise generated by said fan

does not support claims 29-37 and 39 in a way to make them patentable over the prior art. It would have been obvious to one having ordinary skill in the art at the time the invention was made to choose optimum range of fan characteristics (diameter, speed, height e.g.), since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

7. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bologna et al as applied to claim 29 above, and further in view of Alfano et al.

Bologna et al teach all the limitation of the claim except said fan is a variable-speed fan. Alfano et al teach a thermal management system, comprising a variable-speed cooling fan 130. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a variable speed cooling fan as it is shown by Alfano et al in the device by Bologna et al in order to save power and decrease noise in a computing device.

8. Claims 1-6, 8-11 (claim 11 as best understood by examiner), 12-14, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano et al in view of Bologna et al.

Hirano et al teach a plurality of processors P, Figs.9-11, cooled by a fan 95 mounted on a support structure 91 which, being a radiating structure, inherently provides an EMI shielding for said processors, wherein said support structure 91 comprises a plurality of holes 91a formed therethrough. Regarding to the claims 2-6 and 12-14: Hirano et al do not teach a specific type of an electronic device to use a claimed multichip module.

Art Unit: 2835

Bologna et al teach a computing device 30, comprising a housing having a height being the smallest dimension of said housing, said housing encasing a power supply, a processor, a motherboard, a hard drive assembly and a baffle 60; and a fan 54 mounted on a support structure 52 within said housing, wherein said support structure. Bologna et al teach furthermore said fan drawing air over at least power supply assembly (col.3, lines 61-63) and said baffle 60. Bologna et al teach furthermore said computing device housing comprises a cover 76 and a carriage 34, said cover and said carriage comprising a plurality of vents. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a structure by Hirano et al in the computing device such as presented by Bologna et al in order to cool a processor simultaneously creating an EMI protection for the processor. Regarding to the claim 5: The official notes is taken that computer cooling fans consisting a ball bearing or a sleeve bearing are well known in the art. See for example Lai (US Patent 6,400,049). Regarding to the claims 6 and 28: The functional recitations that said fan exhibits a low acoustic signature (claim 6), or that a fan is selected based upon certain criteria (claim 28) has not been given patentable weight because they are narrative in form. In order to be given patentable weight a functional recitation must be expressed as a "means" for performing the special function, as set forth in 35 USC §112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Fuller, 1929 C.D. 172; 388 O.G. 279.

Art Unit: 2835

Regarding to the claim 11: Official notes is taken, that in order to decrease a noise or vibration it is well known in the art to provide a dampening member between a motorized part and its support structure.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano et al and Bologna et al as applied to claim 1 above, and further in view of Alfano et al. Hirano et al and Bologna et al teach all the limitation of the claim except said fan is a variable-speed fan. Alfano et al teach a thermal management system, comprising a variable- speed cooling fan 130. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a variable speed cooling fan as it is shown by Alfano et al in the device by Hirano et al and Bologna et al in order to save power and decrease noise in a computing device.

Allowable Subject Matter

10. Claims 15-25 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: A computing device comprising a combination of parts including a smart card and a fan drawing air from outside a computer housing and over said smart card, wherein said fan is mounted on a support structure, which also provides an EMI protection for a processor.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Katsui (US Patent 6,172,872); Chiou (US Patent 5,867,365) and Jordan et al (US Patent 5,566,749), all of them disclosing a fan cooling a chip, said fan

Art Unit: 2835

being mounted on a metal support structure (heat sink) comprising a plurality of holes, wherein said support structure inherently limits EMI caused by said chip.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Datskovsky whose telephone number is (703) 306-4535. The examiner can normally be reached on Mn - Fry 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (703) 308-4815. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Primary Examiner

Michael Datskovsky

A handwritten signature in black ink, appearing to read "Michael Datskovsky", written in a cursive style.

December 19, 2003